

ABSTRACT OF DISCLOSURE

A low weight encoding circuit of a power delivery system for encoding data sent out on an I/O bus with minimal current drawn so as to minimize signal and timing distortions. Such a low weight encoding circuit comprises a current balance tester arranged to test whether a predetermined number of data bits is current balanced; a current balance encoder and decode bit generator arranged to encode data bits and generate encoded data and corresponding decode bits if the predetermined number of data bits is not current balanced; and a latch arranged to latch either the data bits, via an I/O bus, if said predetermined number of data bits is current balanced or the encoded data and corresponding decode bits, via the I/O bus, if the predetermined number of data bits is not current balanced.